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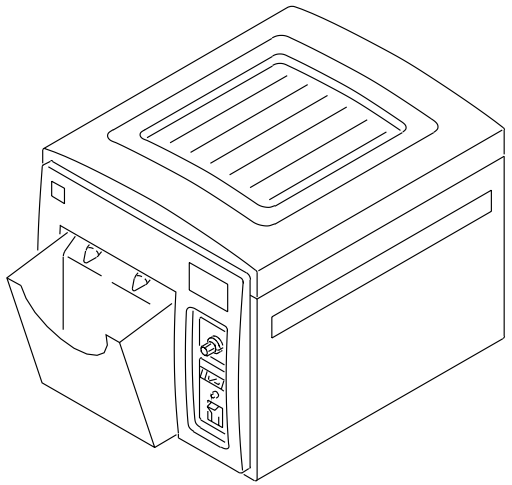
HEALTH IMAGING

SITE SPECIFICATIONS
for the
Kodak Min-R MAMMOGRAPHY PROCESSOR
Service Code: 3752



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Warning

To avoid hazardous conditions, keep floors and floor coverings around your Processor and associated drains clean and dry at all times. Any accumulation of fluids from mixing tanks, drain lines, etc., should be cleaned up immediately. In the event of an accumulation of liquid due to backup, overflow, or other malfunctions of the drain associated with your Processor, call a plumber or other contractor to correct any problem with the drain. Kodak accepts no responsibility or liability whatsoever for the serviceability of any drain connected to or associated with a Processor. Such drains are the sole responsibility of the customer.

Certification

The following Agencies have approved the Processor:		The Processor meets the following EMI limits:
UL	Listed to Standard No. 122	FCC Part 15, Subpart J, Class A
CSA	Certified to Standard C22.2, No. 950	C108.8-M1983 of Canada, Class A Limits
		Directive 87/308/EEC and EN 55022 of the ECC

Checklist

Section	Topic	Reference	Completed
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Suggested Room Layout		Page 18	

Radio Interference

Caution

This equipment generates, uses, and can radiate radio-frequency energy. If the equipment is not installed and used according to the instructions, it may cause interference to radio communications. The equipment has been tested and found to comply with the limits for a *Class A* computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at the user's own expense will be required to take whatever measures may be required to correct the interference.

This digital apparatus does not exceed the *Class A* limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

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Section 1: Architectural

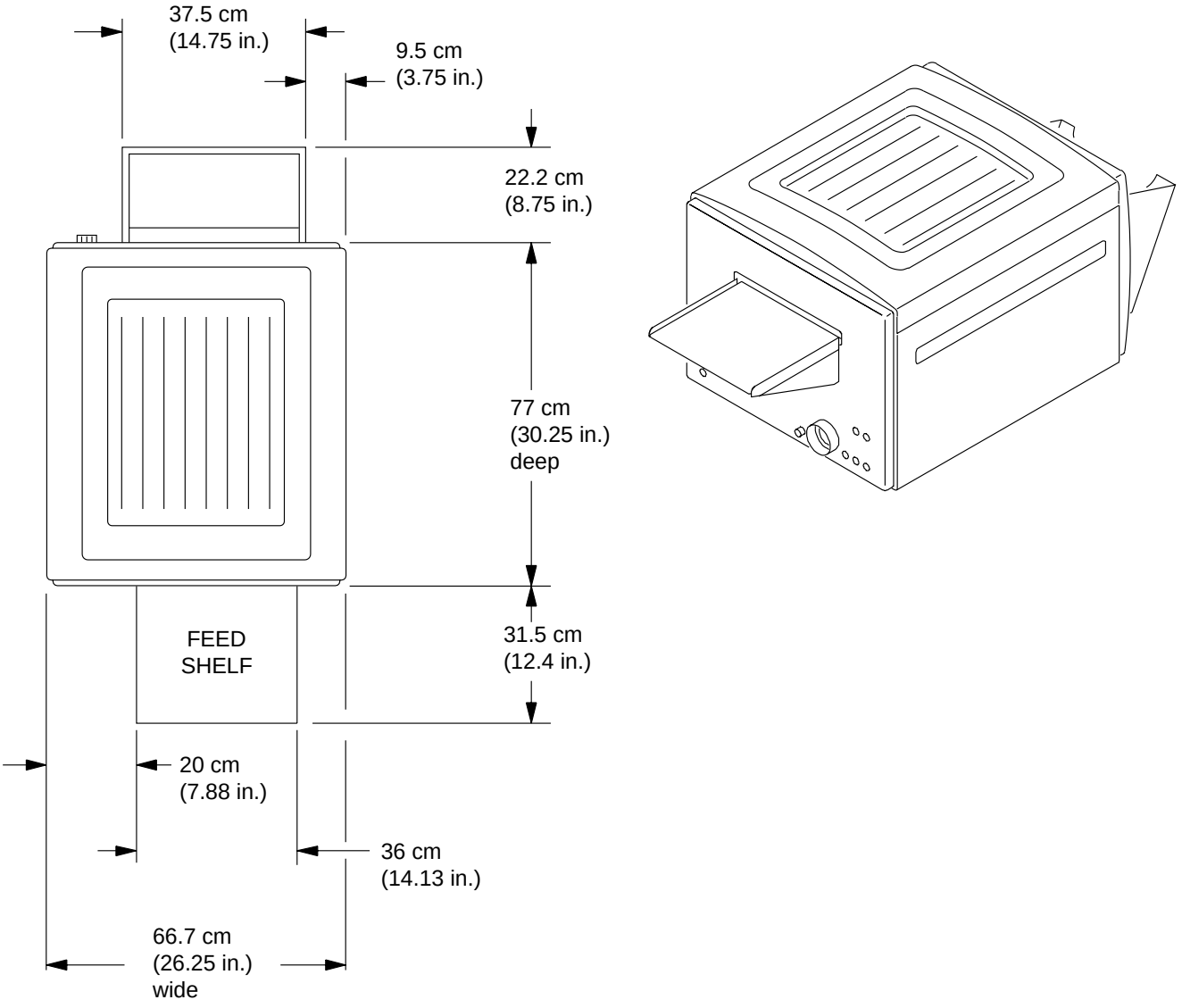
Parts and Accessories

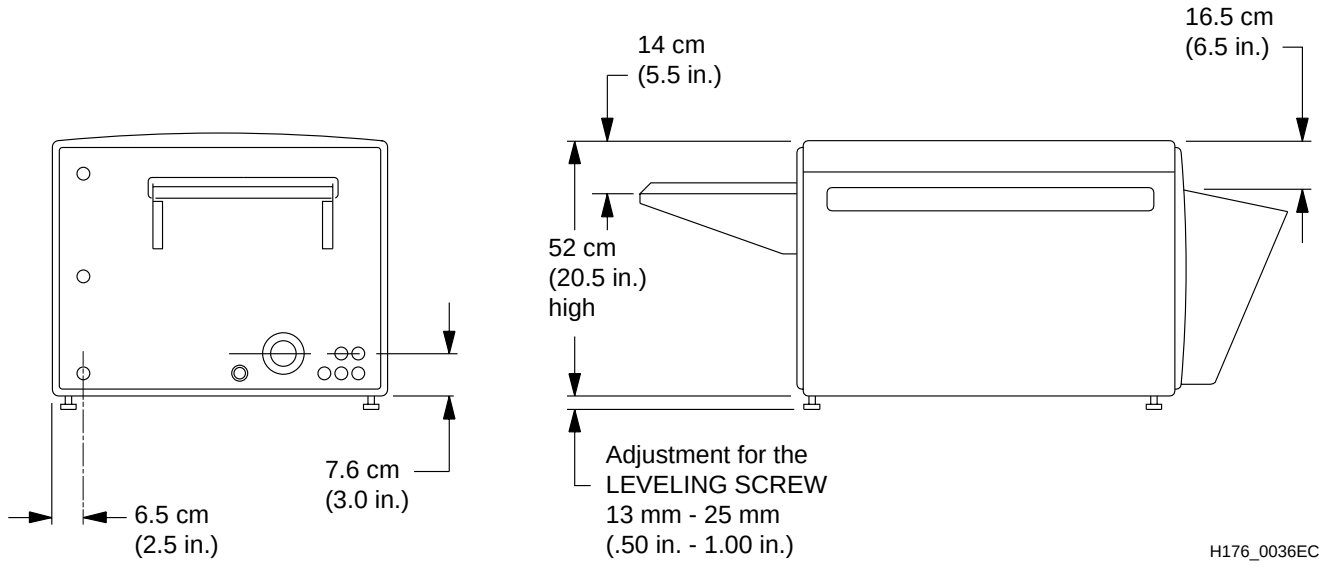
Part No.	Description	Quantity	How to Obtain the Part
261413	Seismic Kit - use on the Processor or the Mounting Stand	1	Can be ordered from Kodak.
808 1176*	*Kodak* M35/M43 *X-Omat* Mounting Stand	1	
3H4195	Light Lock Gasket for installation through a wall	1	Packed with the Processor. See Page 10.
	Hooks, Bolts, Nuts, and Washers for installation through a wall	2 - 4	
	Plywood or equivalent material for installation through a wall	1	Purchase the material locally.

* This item is a catalog number.

Specifications

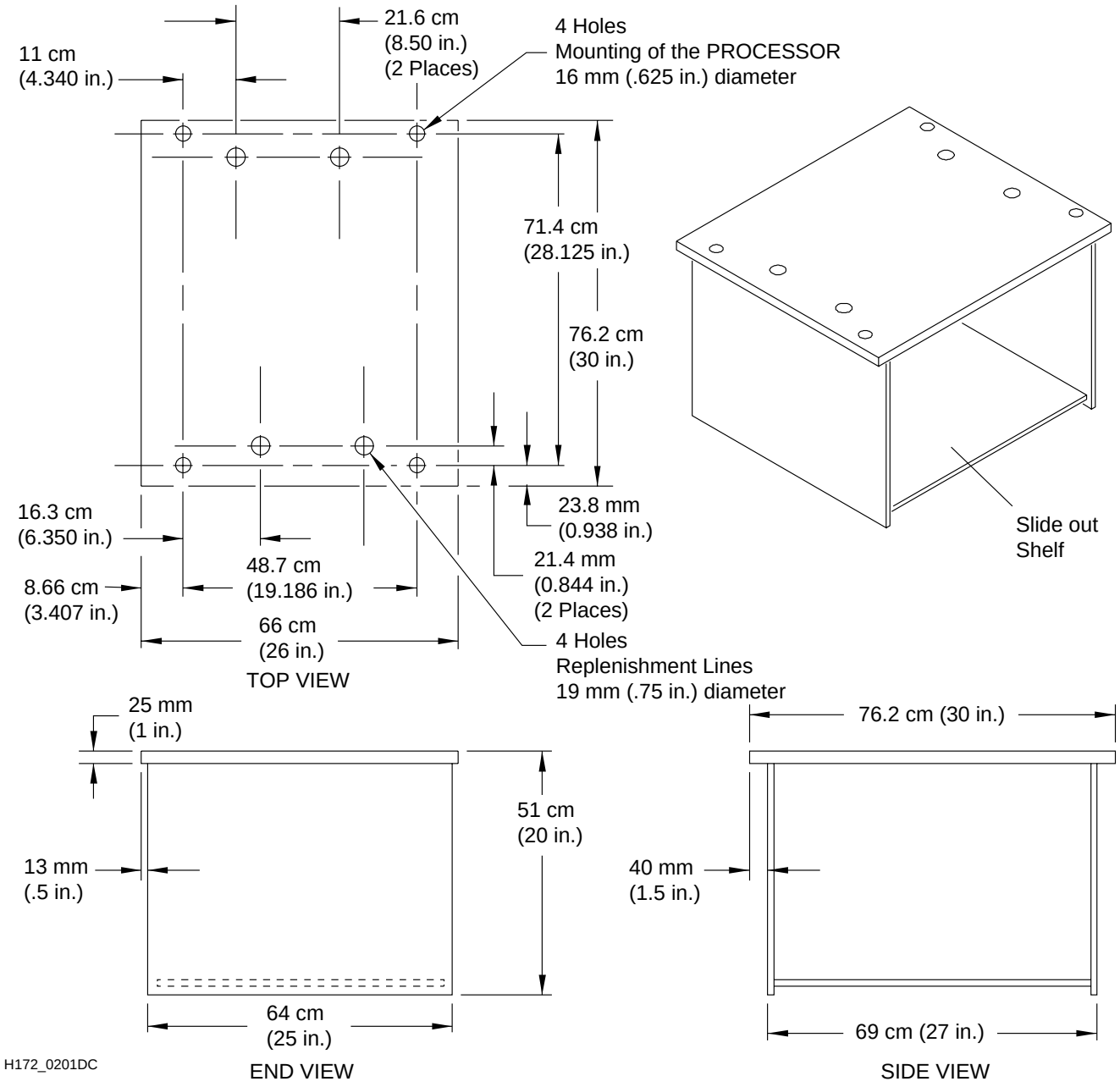
Dimensions and Weight





Shipping Crate and Processor			Weight of the Processor	
Dimensions	Weight		With Solution	Without Solution
89 x 81 x 97 cm (35 x 32 x 38 in.)	108 kg (240 lb)		113 kg (250 lb)	90 kg (200 lb)

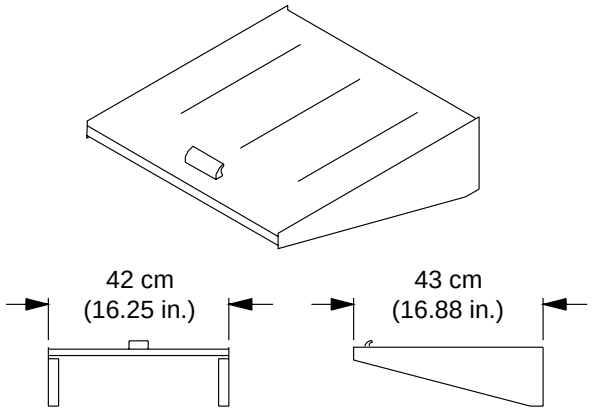
Mounting Stand



Use a rigid Stand that can support a minimum of 225 kg (500 lbs), such as the *Kodak* M35/M43 *X-Omat* Mounting Stand, Catalog No. 808 1176.

For maximum Processor stability, use Bolts to install the Processor to the Stand. Level the Stand and fasten it to the floor. Observe all local codes. The space in the base of the Stand is large enough for a *Kodak* Developer-Fixer Replenisher Tank Set, Model M7, Catalog No. 150 0537.

Lighttight Feed Tray



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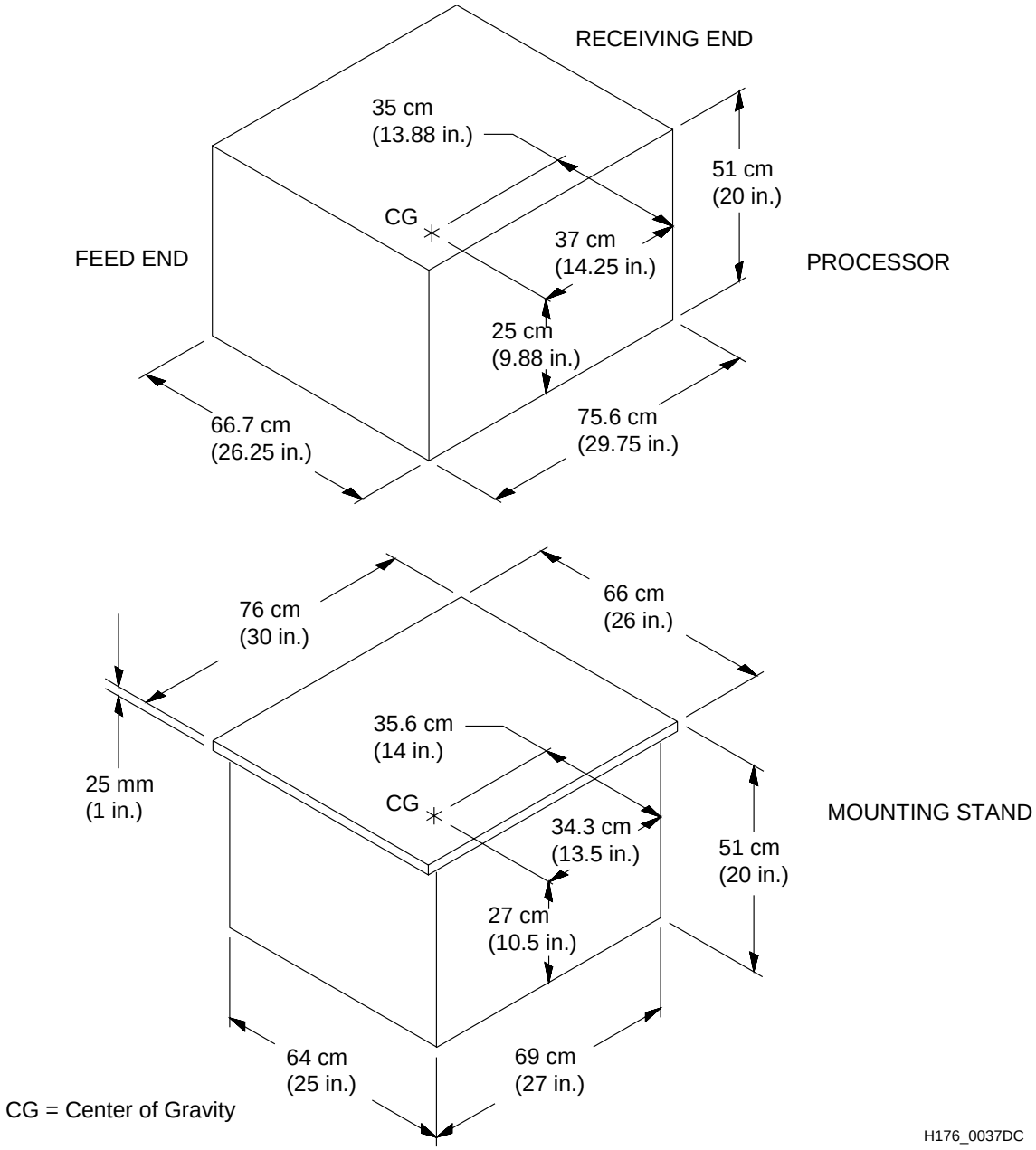
The optional *Kodak* M35/M35A *X-Omat* Lighttight Feed Tray 246558 is available.

Note

You cannot feed 2 sheets of 18 x 24 cm film side by side in the Lighttight Feed Tray.

Center of Gravity



Access and Ceiling Requirements

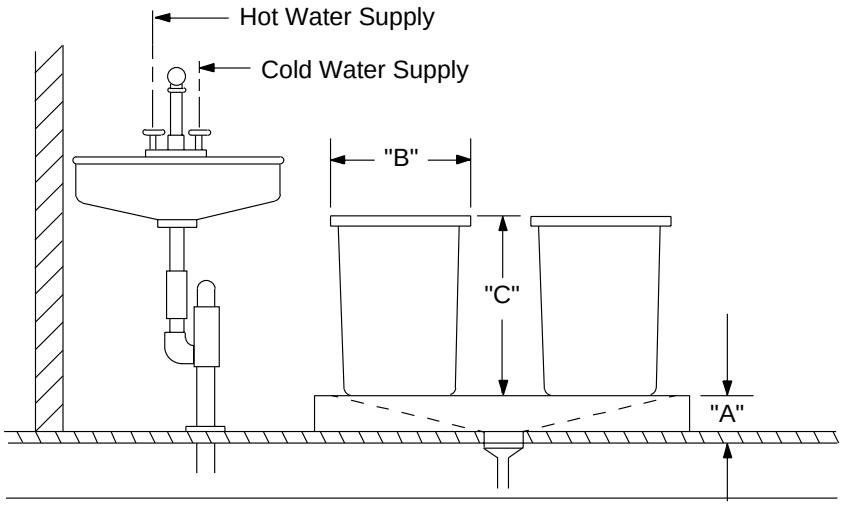
Important

If these access requirements are not provided, service time and cost might increase.

Maintenance and Operation Access Requirements		
Description	**Recommended Minimum Distances**	**Symbol See "Suggested Room Layout" - Page 18**
Drive side of the Processor	91 cm (36 in.)	R
Nondrive side of the Processor	91 cm (36 in.)	S
Dryer side of the Processor	91 cm (36 in.)	T
Feed end of the Processor	91 cm (36 in.)	U
Above the Processor	91 cm (36 in.)	

Maintenance and Operation Access Requirements		
Description	**Recommended Minimum Distances**	**Symbol See "Suggested Room Layout" - Page 18**
Area for 14-gallon Replenishment Tanks	61 x 127 cm (24 x 50 in.)	D x E
Area for 30-gallon Replenishment Tanks	61 x 153 cm (24 x 60 in.)	D x E

Replenishment Tanks



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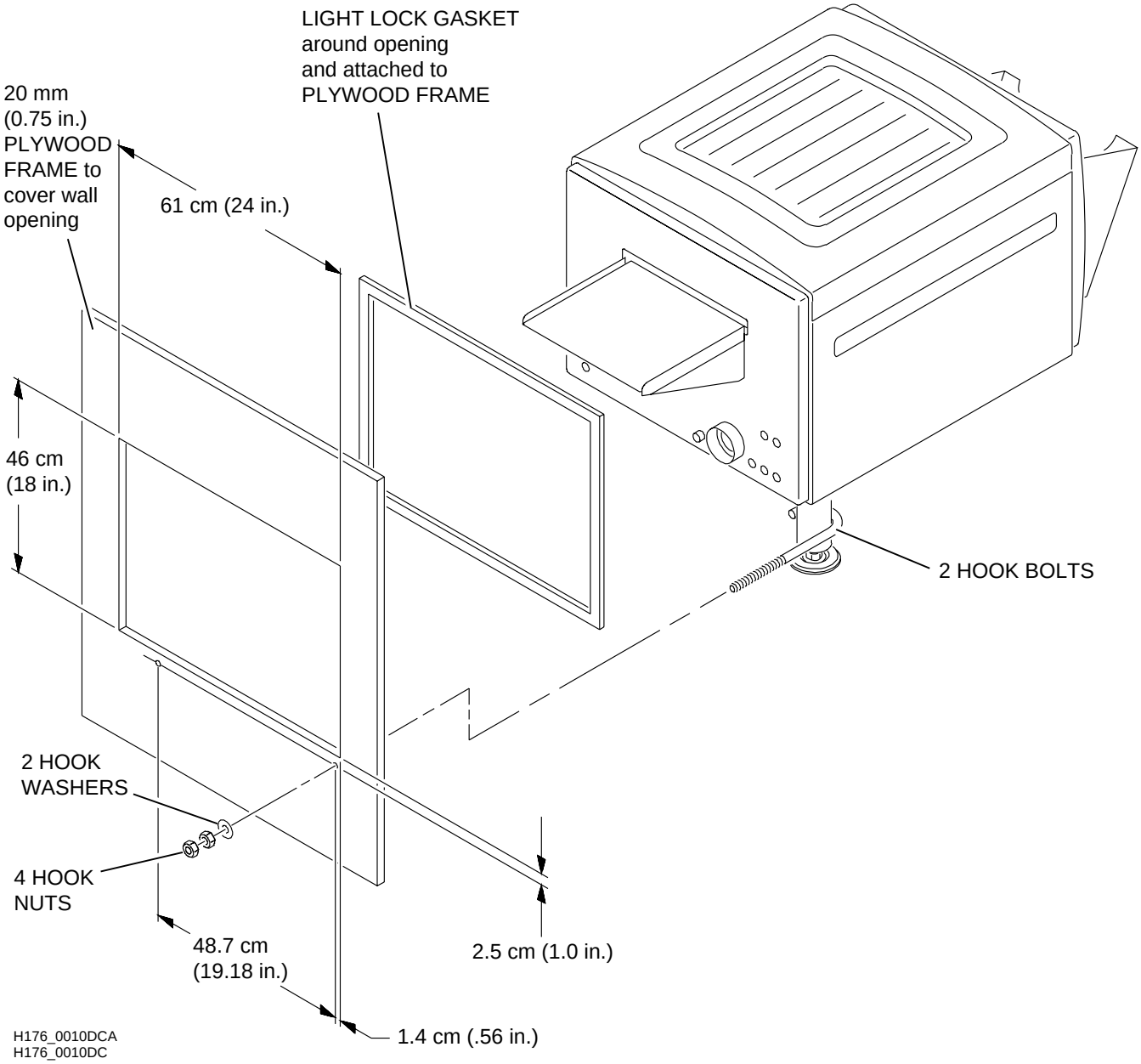
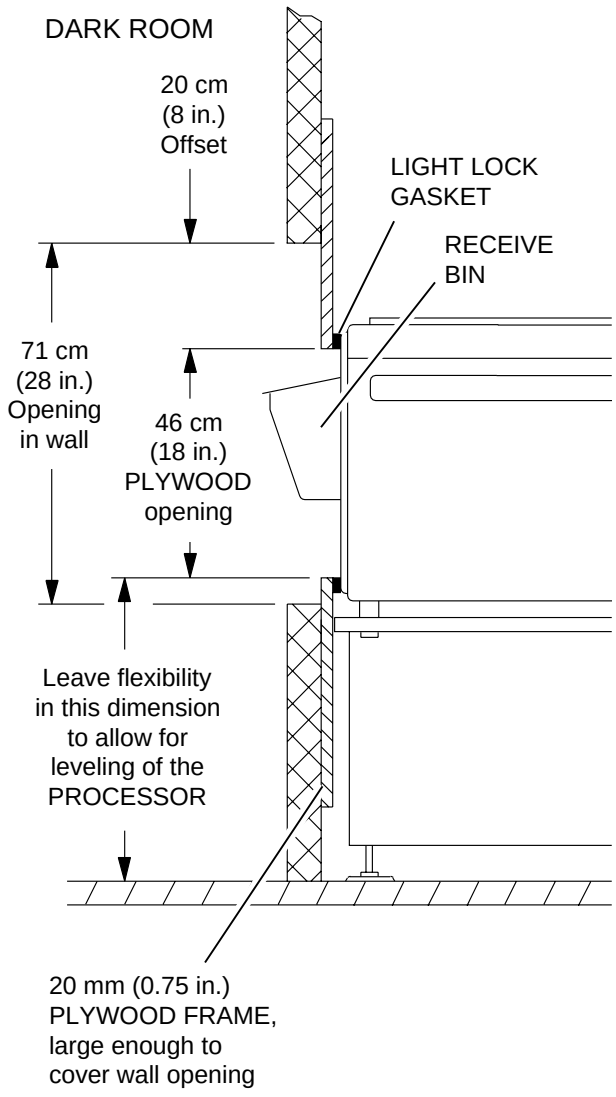
Subject	Requirements			
Position of the Tanks	Locate the Tanks next to the water supply for mixing chemicals. Kodak provides 2 Replenishment Strainer Assemblies to be installed in the Hoses between the Tanks and the Processor.			
Dimensions		**8 gallon**	**14 gallon**	**30 gallon**
	Diameter of a Tank "B"	29 x 43 cm (12 x 17 in.)	43 cm (17 in.)	56 cm (22 in.)
	Height of a Tank "C"	32 cm (12½ in.)	58 cm (23 in.)	70.5 cm (27¾ in.)
	Floor area of 2 Tanks - see Page 18, "D" and "E"		61 x 127 cm (24 x 50 in.)	61 x 153 cm (24 x 60 in.)
	Maximum Platform Height "A"		48 cm (17 in.)	35 cm (14 in.)

Installation Through a Wall

Materials



Dimensions for the Receive Bin



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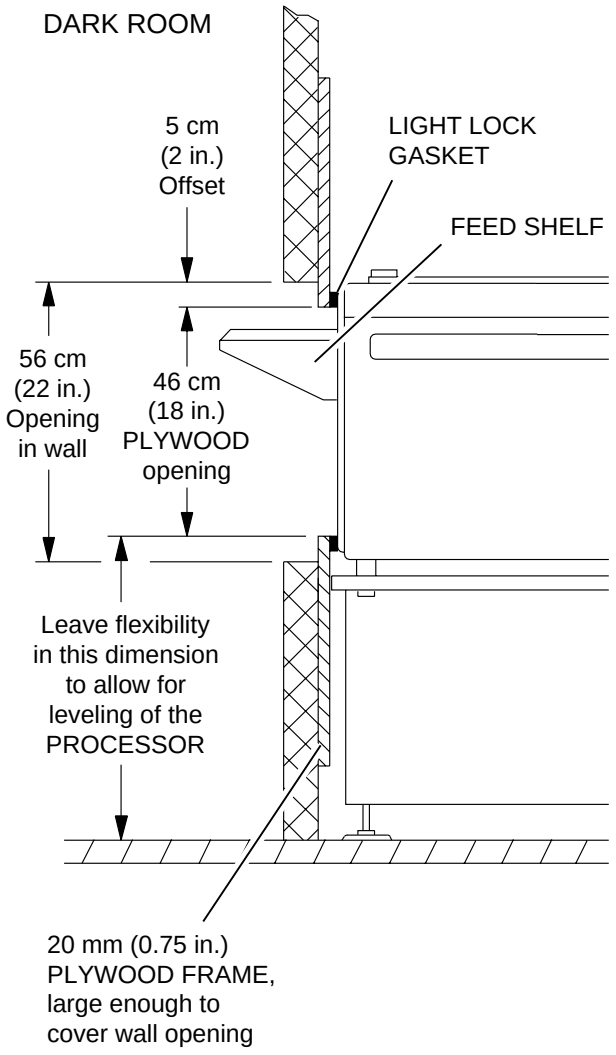
Dimensions for the Feed Shelf



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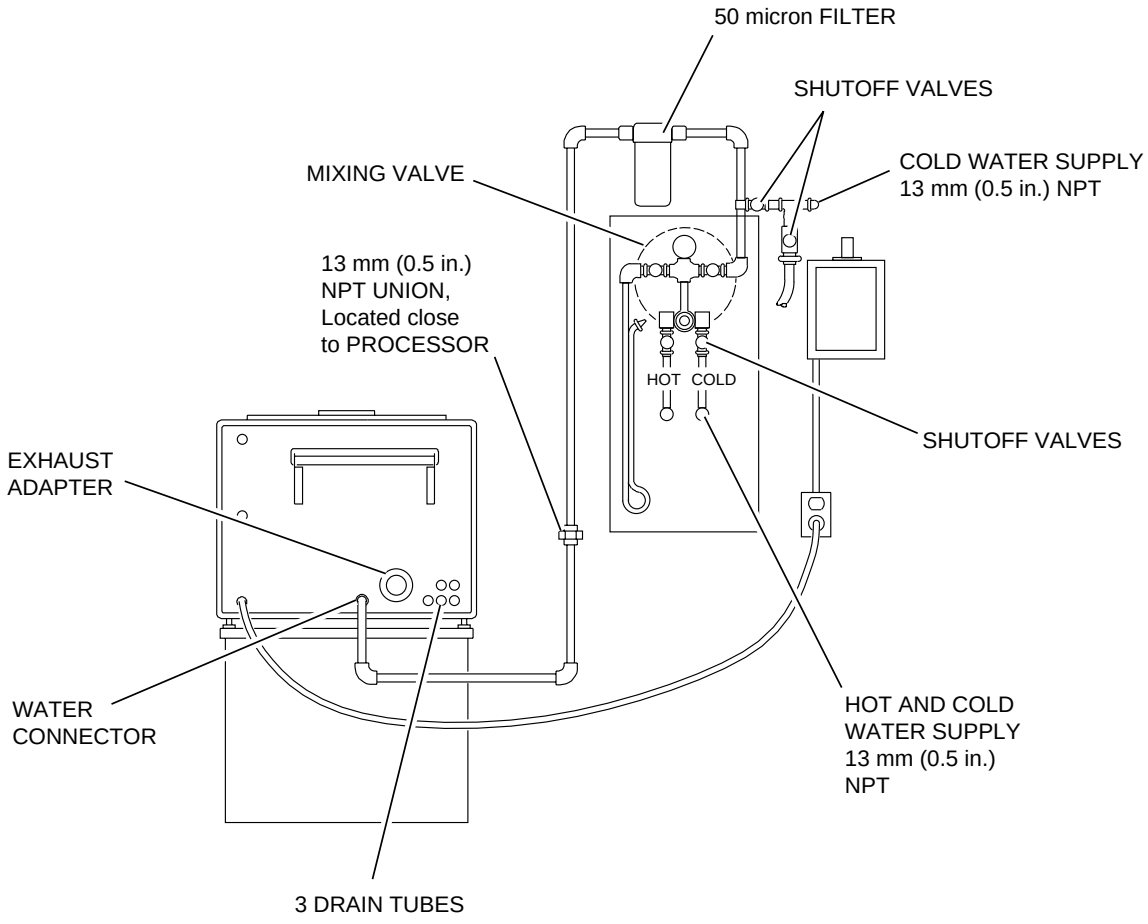
Section 2: Plumbing

Parts



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Part No.	Description	Quantity	How to Obtain the Part
452990	⅜ in. Tubing for the Replenishment System	Order by the foot.	Purchase Tubing or Valve locally or order from Kodak.
467621	½ in. NPT *Kodak* Thermostatic Mixing Valve	1	
246802	Hose Clamp for the Drains	3	Packed with the Processor.
246800	Hose Clamp for the Replenishment Hoses	6	
472261	Replenishment Strainer Assembly	2	
551400	⅜ in. NPTM Water Connector	1	
760476	½ in. Drain Tube	5.50 m (18.0 ft)	

You might find the following parts useful in installing the Processor. They are not available from Kodak.

- ½ in. NPT Check Valve
- ½ in. NPT Union
- 2 ½ in. NPT Shutoff Valves
- In-line Thermometer

Catalog Numbers					
Tank Kit	Replenisher Tank Size			Silver Recovery Unit	
	8 gallon	14 gallon	30 gallon		
Kodak Developer Replenisher Tank Kit		151 1740	102 2987	*Kodak* Chemical Recovery Cartridge, Model II	173 4953
Kodak Fixer Replenisher Tank Kit		151 1765	102 2961	*Kodak* Chemical Recovery Cartridge, Junior Model II	166 9431
Kodak Developer-Fixer Replenisher Tank Set, Model M7 Can be used with the optional Mounting Stand, Catalog No. 808 1176.	150 0537			*Kodak* Circulating Unit, Model II	175 0868

Note

A Tubing Adapter, ½ in. to ¼ in. 555561 is necessary to connect the Silver Recovery Units to a Processor.

Specifications

Subject	Requirements	
Codes	**Warning** All plumbing requirements must agree with local and national codes. Iron Piping is not recommended.	
Drain	**Warning** All drain material must be made of chemically resistant, noncorrosive material. Use PVC or the equivalent. The Drain must have a minimum diameter of 7.6 cm (3 in.) and no obstructions.	
	Minimum diameter	7.6 cm (3 in.)
	Capacity	1 L minimum (¼ gal) during normal operation. 40 L minimum (10½ gal) for draining all 3 solutions together. 13.2 L minimum (3½ gal) if each solution is drained separately.
	Distance from the Processor	1.5 m (60 in.) maximum
	Height from the floor	Flush with the floor and Drain Lines sloping gradually down to the floor Drain.
	Hoses	Drain Tubing is packed with the Processor.
	Drain	Do not make a solid connection between the Hoses and the Drain. Use corrosive resistant connections. If Elbows are necessary to direct the Hoses into the Drain, the customer can order Elbows from Kodak.
Water Supply	Location	Accessible to both the Processor and the Replenishment Tanks.
	Temperature	4 - 30°C (40 - 85°F) If the temperature of the water supply is higher than 30°C (85°F), install a water chiller. Kodak suggests a tempered water supply for cleaning the Processor and for mixing chemicals manually.
	Pressure	138 - 448 kPa (20 - 65 psi) If necessary, install a Pressure Regulator and Gauge.
	Flow volume	Controlled within the Processor to 0.95 L minimum (¼ gal), +10% -0%.
	Filtration	50-micron Water Filter in the input water line
	Check Valve or Vacuum Breaker	The Processor has an internal 20 mm (0.8 in.) water gap in the wash supply system. A Check Valve should not be necessary, unless it is a requirement for local codes.

Section 3: Electrical

<table>
<tr><th>Subject</th><th colspan="3">Requirements</th></tr>
<tr><td>Basic Service</td><td colspan="3">Warning
Earth ground is required.
All electrical service must agree with local and national codes.</td></tr>
<tr><td rowspan="6">Processor</td><td>Voltage</td><td>Hertz</td><td>Amps</td></tr>
<tr><td>200 V AC ± 10%</td><td>50/60</td><td>20 maximum</td></tr>
<tr><td>208 V AC +6% -13%</td><td>60</td><td>20 maximum</td></tr>
<tr><td>230 V AC ± 10%</td><td>50/60</td><td>20 maximum</td></tr>
<tr><td>220 V AC ± 10%</td><td>50</td><td>20 maximum</td></tr>
<tr><td>240 V AC +6% -13%</td><td>50/60</td><td>20 maximum</td></tr>
<tr><td rowspan="2">Main Power Disconnect Switch</td><td colspan="3">The Switch must be:
• located on a wall adjacent to the Processor within 2 m (7 ft) in the light room area.
• visible and accessible from the Processor.
• a safe distance from water.</td></tr>
<tr><td colspan="3">Use either a Fused Disconnect Switch or a 2-pole thermomagnetic Circuit Breaker with a solid neutral and a common trip.</td></tr>
</table>

Section 4: Heating, Ventilation, and Air Conditioning

Parts

Part No.	Description	Quantity	How to Obtain the Part
264503	*Kodak* Auxiliary Ventilation Fan Kit - 110 V AC, 60 Hz Includes Air Gap Assembly 264519	1	Order these parts from Kodak or purchase equivalent parts locally.
8B7105	*Kodak* Auxiliary Ventilation Fan Kit - operates on 95 to 250 V AC, 47 to 63 Hz Includes Air Gap Assembly 264519	1	
264519	Air Gap Assembly	1	

Specifications

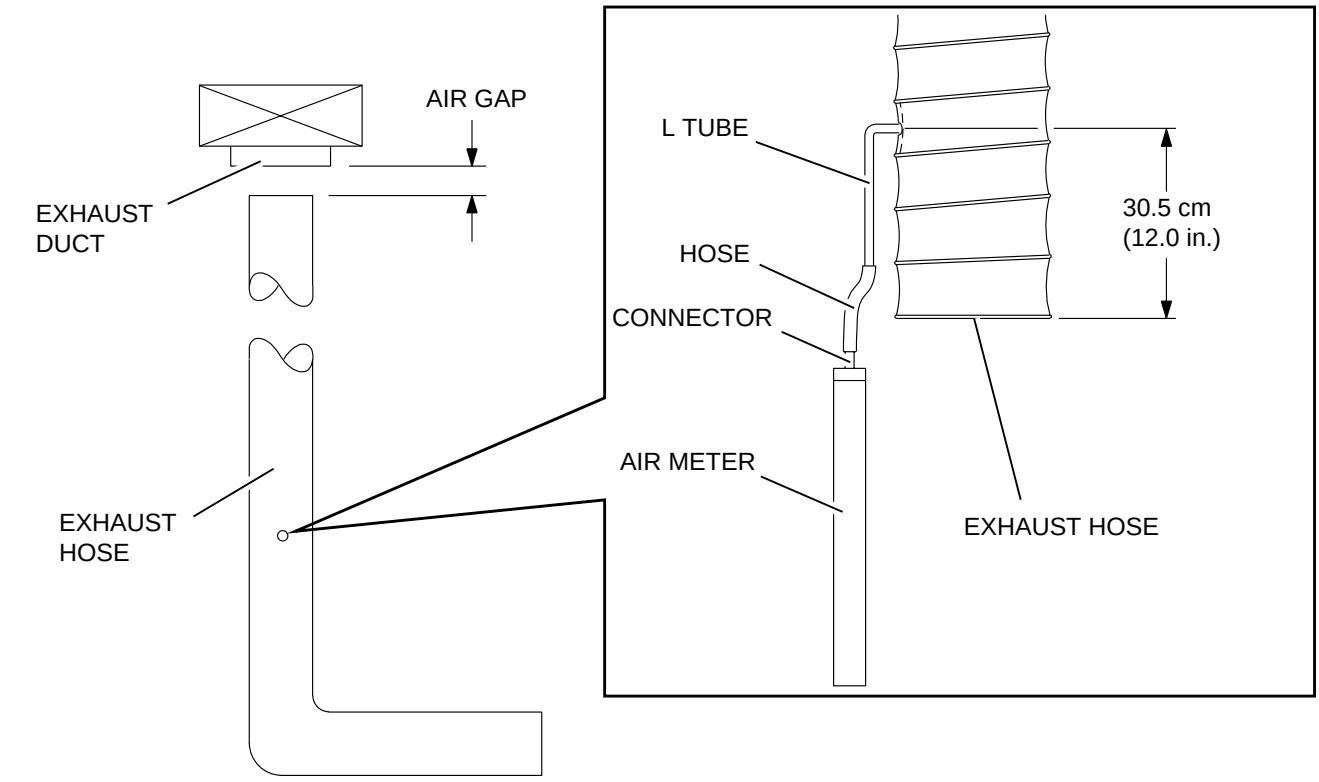
Subject	Requirements		
Room	Temperature	15 - 30°C (59 - 86°F)	
	Relative Humidity	15 - 76%	
	Ventilation	10 room air exchanges/hr for a room that is 3 x 3 x 3 m (10 x 10 x 10 ft)	
Building Exhaust System	The system must have the following ratings:		
	Volume - full load	2,124 L minimum (75 ft^3) 24 hours per day	
	Temperature	66°C (150°F) maximum	
	Heat Load to the room with the Processor	3400 kJ/hr (3200 BTU/hr)	
	Exhaust Duct from the Processor	Diameter = 7.6 cm (3 in.)	
	Exhaust Duct from the building with an adjustable Air Gap	Negative Pressure*	
		7.6 cm (3 in.) Duct	0.76 - 1.02 mm (0.03 - 0.04 in.) of water
		10.2 cm (4 in.) Duct	0.25 - 0.51 mm (0.01 - 0.02 in.) of water
		*See the procedure on Page 17 to check the negative pressure. If the negative pressure is not correct, an Auxiliary Ventilation Fan must be installed.	

Note

For installations through a wall, the air pressure in the dark room must be greater than the air pressure in the light room to prevent air flowing through the Processor into the dark room. When the air pressure is correctly balanced and the Processor is correctly vented, the:

- chemical fumes and vapors will be contained
- film artifacts will be decreased

Checking the Negative Pressure



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[1] Connect the rubber Hose from the Air Meter TL-2431 to:

- L Tube
- center Connector on the Meter

[2] Make a 6.4 mm (¼ in.) hole approximately 30.5 cm (12 in.) from the end of the Exhaust Hose that will be connected to the Processor.

[3] Insert the L Tube into the 6.4 mm (¼ in.) hole until the end of the Tube is flush with the inside of the Exhaust Hose.

Important

- Hold the Meter vertically.
- Do not connect the Exhaust Hose to the Processor when checking the negative pressure.

[4] Use the Air Meter TL-2431 to check that the negative pressure is correct:

Diameter of the Exhaust Hose	Negative Pressure
7.6 cm (3.0 in.)	0.76 - 1.02 mm (0.03 - 0.04 in.) of water
10.2 cm (4.0 in.)	0.25 - 0.51 mm (0.01 - 0.02 in.) of water

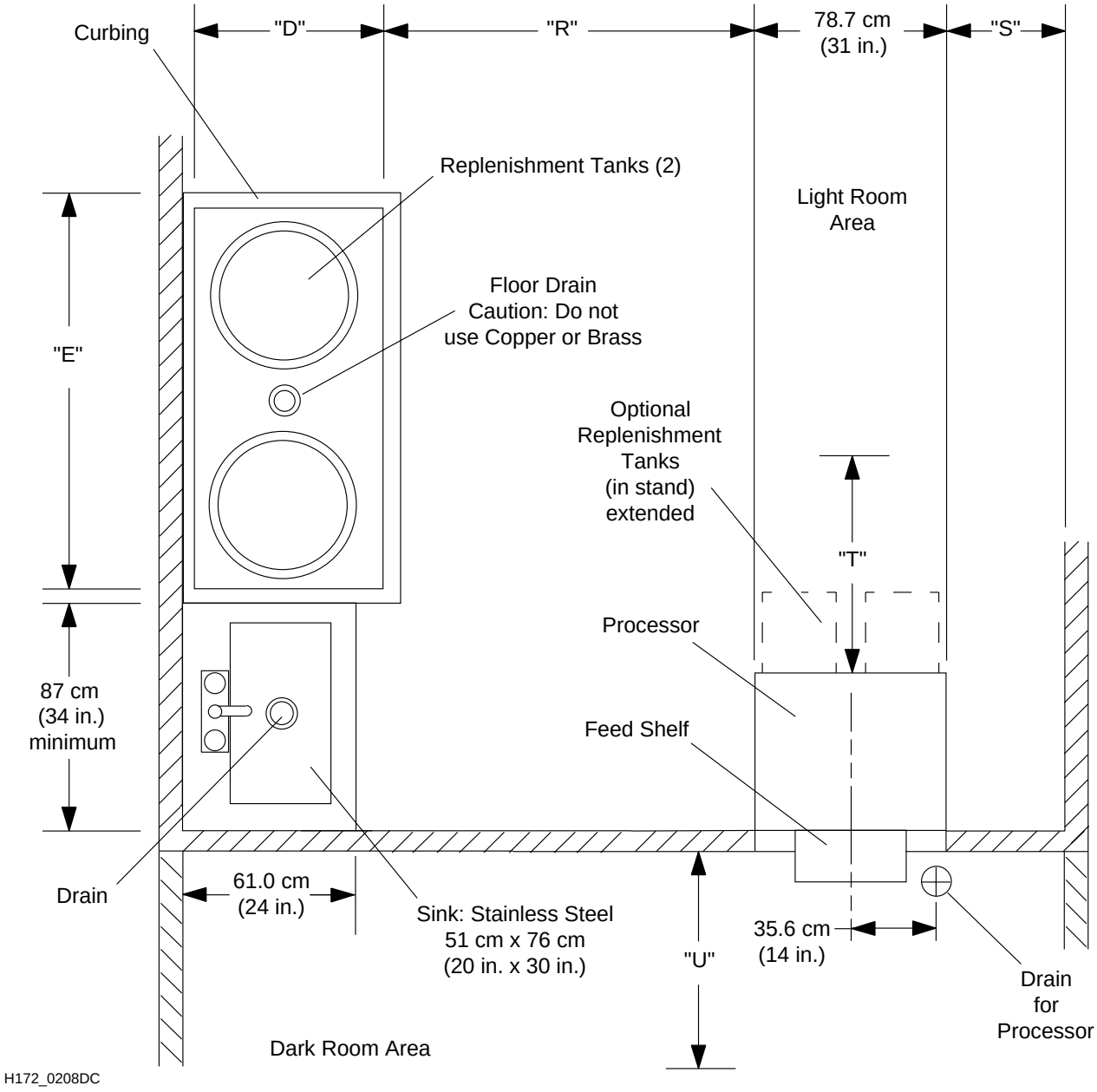
[5] If the negative pressure is not correct, adjust the distance between the Exhaust Duct for the building and the Exhaust Hose for the Processor.

[6] If the negative pressure cannot be obtained, install an Auxiliary Ventilation Fan. See the installation instructions that is included with the Auxiliary Ventilation Fan.

[7] Remove the L Tube from the Exhaust Hose and block the hole in the Exhaust Hose.

[8] Connect the Exhaust Hose to the Processor.

Section 5: Suggested Room Layout



Note

For dimensions “D”, “E”, “R”, “S”, “T” and “U”, see the table for “Maintenance and Operation Access Requirements” on Page 8.

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